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Vandenberg AFB

Envir Vision



Reclaiming Launch Water A Success at Vandenberg



LWRs filtration system inside trailer located at SLC-2W.

The Delta II rocket launch from Space Launch Complex No. 2 West (SLC-2W) on 25 March 00 was a complete success for all involved including the Environmental Flight. The newly designed Launch Water Reclamation System (LWRs) passed its first test by reclaiming over 23,000 gallons of launch water.

During launches, a pulse suppression system is used to reduce noise and vibration generated by the

launch vehicle. The pulse suppression system uses thousands of gallons of potable water from a storage tank; this water collects in a retention basin under the launch pad. Because this water becomes contaminated with low levels of metals from the solid rocket boosters, it is considered industrial wastewater and, in the past, has been taken to the Industrial Wastewater Treatment Plant (IWTP) for processing. Each launch generates approximately 30,000 gallons of wastewater. In addition, crew certification testing before the launch generates another 30,000 gallons of (uncontaminated) water, which is discharged to grade.

Historically, industrial wastewater generated at SLC-2 was taken to the IWTP by tanker truck. The IWTP is located on South Vandenberg AFB and the trip was 23 miles each way. Each tanker truck holds only 2,500 gallons of water, so moving 30,000 gallons required 12 round trips, covering a distance of 552 miles.

The LWRs in contrast, eliminates the need for water hauling and reclaims the water generated by the launch suppression system at SLC-2. The reclamation unit is mounted inside a trailer for portability to support other launch facilities on Vandenberg. The LWRs unit is a water reclamation system consisting of a multi-media filter, an activated carbon filter, and an ion exchange system. The system is designed to remove all the constituents in the pulse suppression water. Because the launch suppression water is reclaimed and reused on site, turnaround time is significantly reduced.

The SLC-2 LWRs consists of the reclamation unit and the closed-loop conveyance system. The conveyance system consists of a series of pumps, valves, and piping. This system is designed to contain water generated during launch operations, and either process the water through the LWRs reclamation trailer, or pump the water directly to Tank 1627, depending on the source of the water. (*cont'd on page 2, see Reclaiming Launch Water*)

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New Aboveground Storage Tank Reduces Oil Drums

Vandenberg is reducing the number of waste oil drums basewide by acquiring a Waste Oil Aboveground Storage Tank at the Consolidated Collection Accumulation Point (CAP), Building 6830.

The tank stores 2,000 gallons of used oil, replacing approximately 40 drums. Base facilities can now dispose of used oil daily according to the Hazardous Waste Management Plan, 30 SW Plan 30-7043-A, and eliminate generation and storage of used oil drums at their facilities.

Contact the CAP, ext. 6-8438, for more information.

Reclaiming Launch Water (cont'd from page 1)

All aspects of the LWRS are automated and can be remotely controlled. This allows the unit to be operated during launch windows, without requiring on-site manning. During the six-month trial operation period, the LWRS supported two tests of Boeing's launch suppression system pumps, one crew certification, and one actual launch. In these operations, the LWRS reclaimed approximately 87,000 gallons of water, 64,000 of which would have been discharged to grade and 23,000 of which would have been hauled to the IWTP for processing.

Vandenberg AFB plans to use the LWRS at various launch facilities throughout the base, as well as SLC-6. The long term benefits of this system include hundreds of thousands of gallons of reclaimed water for other uses, reduction in air pollution, and increased response time for launch operations.

Are You Buying Re-Refined Oil?

Vandenberg facilities currently recycle used oil. The question is, are they buying re-refined oil products, and closing the recycling loop?

When used oil is recycled, the products are treated and remade into the same product. Therefore, in order to complete the recycling process, facilities must also purchase re-refined oil products.

"Re-refined oil" means oil manufactured with a minimum of 25 percent re-refined base-stock. Current technologies allow used oil to be re-refined into a high quality base-stock that can be used over and over again.

There are many re-refined oil products on the market. If you are an IMPAC card holder, the following DLA website will assist you with future re-refined oil purchases: www.dscr.dla.mil/products/pol/polintro.htm.

Solid Waste Management Plan Nears Completion

Comments and feedback from military organizations and contractors have been received and are now being incorporated into the 2000 Solid Waste Management Plan (SWMP), 30 SW Plan 32-7042. The last update of the SWMP occurred in 1997; the goal for this update is producing a user-friendly informational and instructional guide to increase recycling on Vandenberg AFB.

Many important components of solid waste management will be discussed in the SWMP: basic landfill operations, recycling and diversion programs, regulatory framework (federal, Executive Orders, state, Air Force Instructions, and policy letters), Air Force reduction goals, and pertinent web links to regulations and other solid waste sites.

A separate appendix entitled, "Special Topics," provides a comprehensive list of materials from A to Z with details on how to properly reuse, recycle, or dispose of each material.

Upon 30 SW/CC signature, the SWMP will be uploaded on the Vandenberg AFB intranet web site. Organizations that are not connected to the base network will receive hard copies of the plan. The expected release date of the SWMP is 7 July 00.

If you would like more information about the SWMP or any aspect of solid waste management on Vandenberg, please contact Gary Kamei, 30 CES/CEV, ext. 6-3271.